

Abstract

A novel highly bright mechanoluminescence material free from decay of luminescence brightness even if repeated stress is applied, comprising a composite semiconductor crystal of the general formula $xM^1A^1 \cdot (1-x)M^2A^2$ (wherein each of M^1 and M^2 independently represents an atom selected from among Zn, Mn, Cd, Cu, Eu, Fe, Co, Ni, Mg and Ca, and each of A^1 and A^2 is an atom independently selected from among chalcogens, provided that M^1A^1 is different from M^2A^2 ; and x is a positive number less than 1); and a process for producing the same.